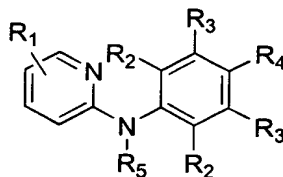


What is claimed is:

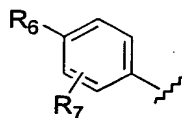
1. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound having the formula



or a pharmaceutically acceptable salt thereof, wherein

- (a) R_1 is H or a substituent bound at either the 5 or 6 ring position and selected from the group consisting of alkyl, alkenyl, alkynyl, thienyl, furanyl, pyrrolyl, phenyl, pyrimidinyl, substituted pyrimidinyl, pyridinyl, substituted pyridinyl, phenyl alkenyl, substituted phenyl alkenyl, benzo[b]thien-2-yl, 2-benzofuranyl and substituted phenyl,

said substituted phenyl having the formula



wherein (i) R_6 is selected from the group consisting of H, OH, halogen, alkylamino, dialkylamino, hydroxy-substituted dialkyl amino, lower alkyl, acidic lower alkyl, alkoxy, halogen-substituted lower alkoxy, phenyl and morpholinyl, and (ii) R_7 represents between one and four substituents which may be the same or different and are selected from the group consisting of H, halogen, amino, alkyl, lower alkyl, halogen-substituted lower alkyl, alkylamino, dialkylamino, acidic lower alkoxy, alkoxy, halogen-substituted lower alkoxy, alkoxy and phenylalkoxy, with the proviso that R_6 and R_7 may be fused to form 2-naphthyl or 1,3-benzodioxolyl;

- (b) Each R_2 is independently H or lower alkyl;
- (c) Each R_3 is independently selected from the group consisting of H, lower alkyl, amino, alkylamino, dialkylamino and lower alkoxy;

- (d) R_4 is H, alkoxy or morpholinyl, with the proviso that R_4 may be fused with R_3 to form 2,3-dihydro-1,4-benzodioxinyl or 9-alkyl 9H carbazolyl; and
- (e) R_5 is H or lower alkyl.

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2. The pharmaceutical composition of claim 1, wherein R_1 is a substituted phenyl at the 5 ring position, and each R_2 is H.

3. The pharmaceutical composition of claim 2, wherein R_4 is morpholinyl.

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4. The pharmaceutical composition of claim 2, wherein each R_3 is lower alkoxy and R_4 is lower alkoxy.

5. The pharmaceutical composition of claim 1, wherein R_1 is at the 6 ring position, and each R_2 is H.

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6. The pharmaceutical composition of claim 5, wherein each R_3 and R_4 are lower alkoxy.

7. The pharmaceutical composition of claim 1, wherein the compound is 5-(3-ethoxyphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.

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8. The pharmaceutical composition of claim 1, wherein the compound is N-[4-(4-morpholinyl)phenyl]-5-(2-naphthyl)-2-pyridinamine.

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9. The pharmaceutical composition of claim 1, wherein the compound is 5-benzo[b]thien-2-yl-N-[4-(4-morpholinyl)phenyl]-2-pyridinamine.

10. The pharmaceutical composition of claim 1, wherein the compound is 5-[3,5-bis(trifluoromethyl)phenyl]-N-[4-(4-morpholinyl)phenyl]-2-pyridinamine.

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11. The pharmaceutical composition of claim 1, wherein the compound is 5-[4-(4-morpholinyl)phenyl]-N-[4-(pentyloxy)phenyl]-2-pyridinamine.

12. The pharmaceutical composition of claim 1, wherein the compound is 5-[4-(dimethylamino)phenyl]-N-[4-(pentyloxy)phenyl]-2-pyridinamine.
- 5 13. The pharmaceutical composition of claim 1, wherein the compound is 5-[4-(dimethylamino)phenyl]-N-(4-methoxyphenyl)-2-pyridinamine.
14. The pharmaceutical composition of claim 1, wherein the compound is 5-(1,3-benzodioxol-5-yl)-N-[4-(pentyloxy)phenyl]-2-pyridinamine.
- 10 15. The pharmaceutical composition of claim 1, wherein the compound is 4-[6-[[4-(pentyloxy)phenyl]amino]-3-pyridinyl]-benzenepropanoic acid.
- 15 16. The pharmaceutical composition of claim 1, wherein the compound is 5-(2-methoxyphenyl)-N-[4-(pentyloxy)phenyl]-2-pyridinamine.
17. The pharmaceutical composition of claim 1, wherein the compound is N-(2,3-dihydro-1,4-benzodioxin-6-yl)-5-[(E)-2-phenylethenyl]-2-pyridinamine.
- 20 18. The pharmaceutical composition of claim 1, wherein the compound is N-[6-[3-(dimethylamino)phenyl]-2-pyridinyl]-9-ethyl-9H-carbazol-3-amine.
19. The pharmaceutical composition of claim 1, wherein the compound is 6-(3-ethoxyphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
- 25 20. The pharmaceutical composition of claim 1, wherein the compound is 6-[3-(trifluoromethoxy)phenyl]-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
21. The pharmaceutical composition of claim 1, wherein the compound is 6-(1,3-benzodioxol-5-yl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.,
- 30 22. The pharmaceutical composition of claim 1, wherein the compound is 6-phenyl-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.

23. The pharmaceutical composition of claim 1, wherein the compound is 6-(3,4-dimethoxyphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
- 5 24. The pharmaceutical composition of claim 1, wherein the compound is 6-(3,4-dimethylphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
25. The pharmaceutical composition of claim 1, wherein the compound is N-(4,5-dimethoxy-2-methylphenyl)-6-(3,4-dimethylphenyl)-2-pyridinamine.
- 10 26. The pharmaceutical composition of claim 1, wherein the compound is 6-(2-naphthyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
- 15 27. The pharmaceutical composition of claim 1, wherein the compound is 6-(2-phenoxyphenyl)-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
- 20 28. The pharmaceutical composition of claim 1, wherein the compound is 6-[(E)-2-phenylethenyl]-N-(3,4,5-trimethoxyphenyl)-2-pyridinamine.
- 25 29. A method for reducing ischemic death in a cell population comprising contacting a cell in the cell population with a prophylactically effective amount of the compound of claim 1.
- 30 30. The method of claim 29, wherein the cell is selected from the group consisting of a neuronal cell, a glial cell, a cardiac cell, a lymphocyte, a macrophage and a fibroblast.
31. A method for reducing neuronal cell death in response to a traumatic event comprising contacting the neuronal cell with a prophylactically effective amount of the compound of claim 1 prior to, during, or within a suitable time period following the traumatic event.
32. The method of claim 29, wherein the contacting is performed *in vitro*.

33. The method of claim 31, wherein the contacting is performed *in vitro*.

34. The method of claim 29 , wherein the contacting is performed *ex vivo*.

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35. The method of claim 31, wherein the contacting is performed *ex vivo*.

36. The method of claim 29 , wherein the contacting is performed *in vivo*.

10 37. The method of claim 31, wherein the contacting is performed *in vivo*.

38. A method for reducing neuronal cell death in response to a traumatic event, comprising administering to the subject a prophylactically effective amount of the pharmaceutical composition of claim 1 prior to, during, or within a suitable time period following the traumatic event.

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39. The method of claim 38, wherein the subject is a human.

40. The method of claim 38, wherein the traumatic event is selected from the group consisting of a medical disorder, a physical trauma, a chemical trauma and a biological trauma.

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41. The method of claim 38, wherein the pharmaceutical composition is administered prior to the traumatic event.

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42. The method of claim 38, wherein the pharmaceutical composition is administered during the traumatic event.

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43. The method of claim 38, wherein the pharmaceutical composition is administered subsequent to the traumatic event.

44. An apparatus for administering to a subject the pharmaceutical composition of claim 1 comprising a container and the pharmaceutical composition therein,

45. The apparatus of claim 44, wherein the device for delivering the pharmaceutical
5 composition is a syringe.

The apparatus of claim 44, wherein the device for delivering the pharmaceutical composition is a syringe.